

ABSTRACT

Gaseous mixture of chlorine dioxide and chlorine produced by reacting an inorganic acid with an aqueous solution of an alkali metal chlorate by controlled introduction of the inorganic acid into the aqueous solution of alkali metal chlorate. Inorganic acid passed through a volume of alkali metal chlorate flowing through a horizontal reactor in a plug flow regime results in an enhanced gaseous mixture of chlorine dioxide, chlorine and steam that can be withdrawn as a product stream.

10034995.01.1802